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Parlapiano

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(54) **PORTABLE ANTI-THEFT DEVICE**

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(22) Filed: **Apr. 9, 2009**

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(51) **Int. Cl.**
E05G 1/00 (2006.01)

(52) **U.S. Cl.** **109/50**; 109/52; 70/14; 70/18; 70/232; 70/201

(58) **Field of Classification Search** 70/14, 232, 70/201–203, 18; 109/50, 52
See application file for complete search history.

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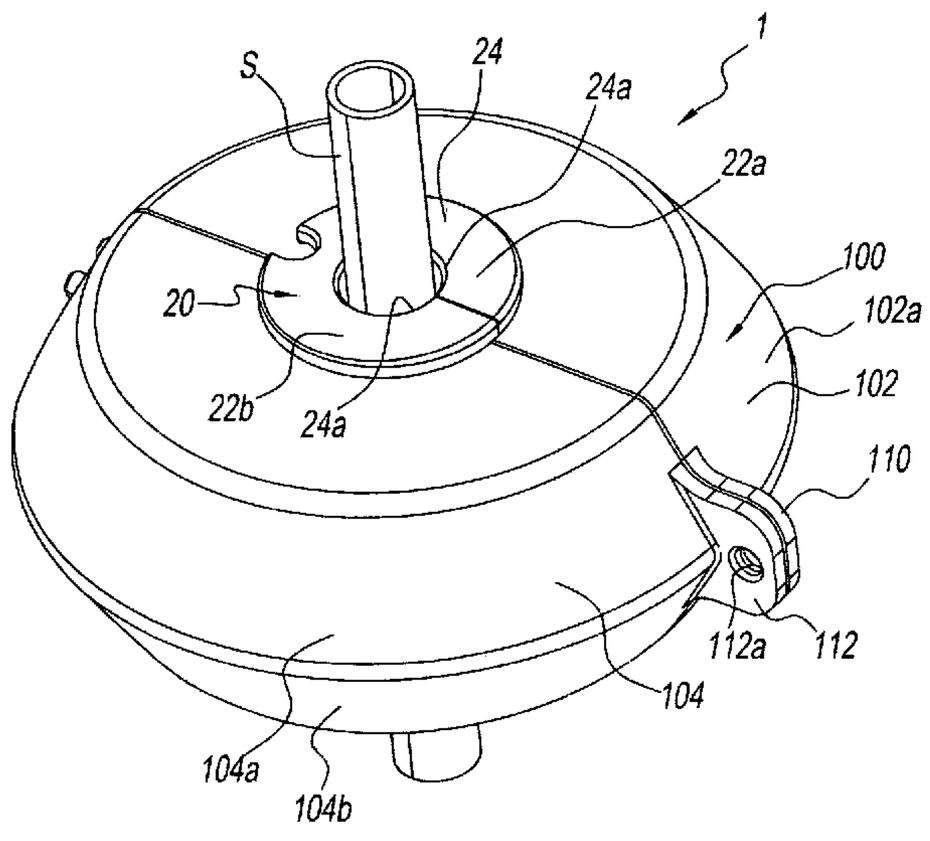
(57) **ABSTRACT**

A portable anti-theft device for attachment to a piece of portable outdoor furniture comprises a base attachable to the outdoor furniture and a hollow security shell attachable to the base. The base comprises a segmented tubular body comprising at least two semitubular segments and having an inner peripheral surface; longitudinally opposed stops extending outwardly from the base, and a closure for attaching, the base to the portable outdoor furniture. The hollow security shell comprises a first shell segment and a second shell segment (the first and second shell segments defining an enclosed internal space with a pair of vertically-opposed apertures), and a hinge joining said first and second half shells, the security shell being configured to enclose the closure.

12 Claims, 21 Drawing Sheets



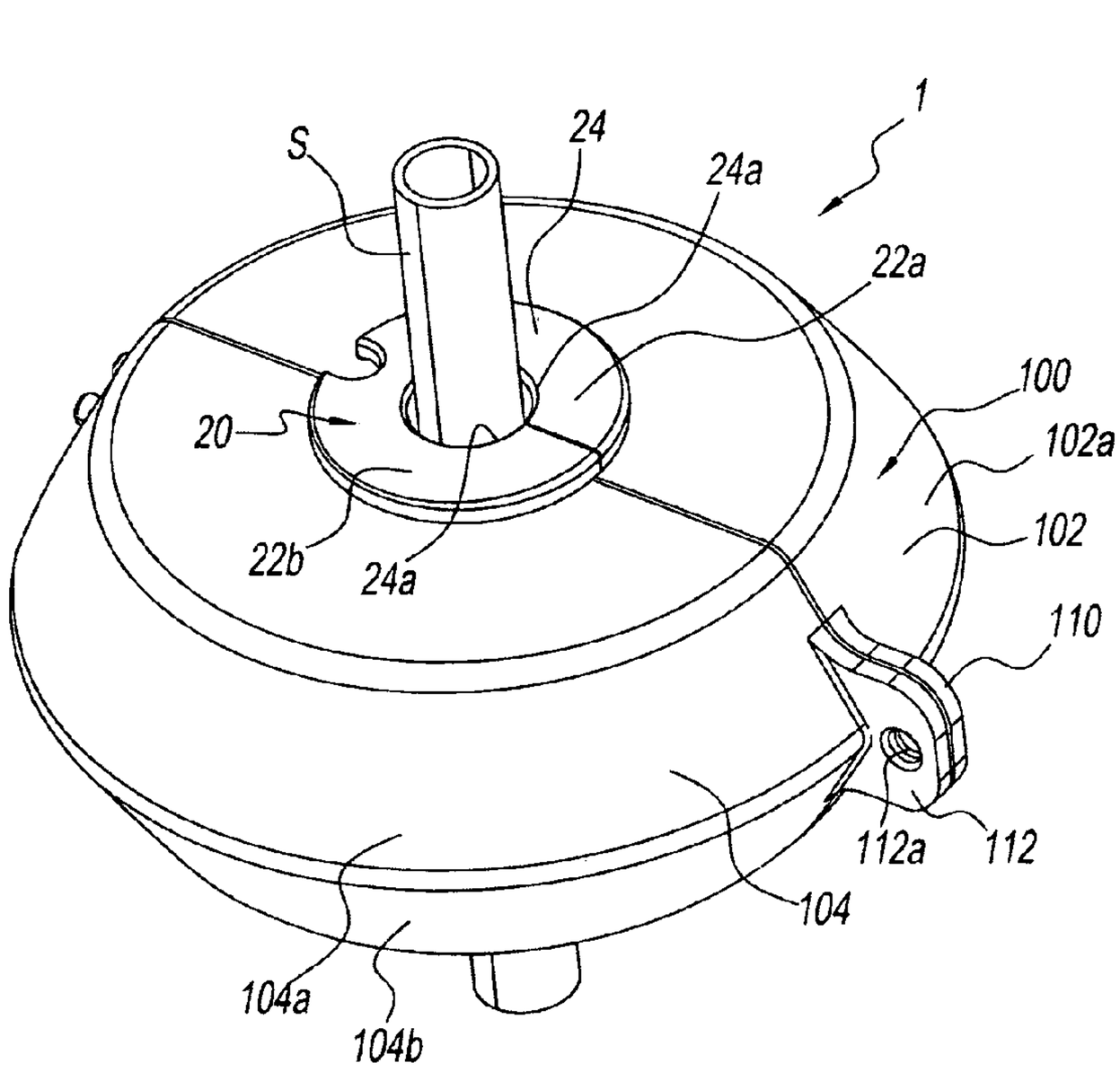


FIG. 1

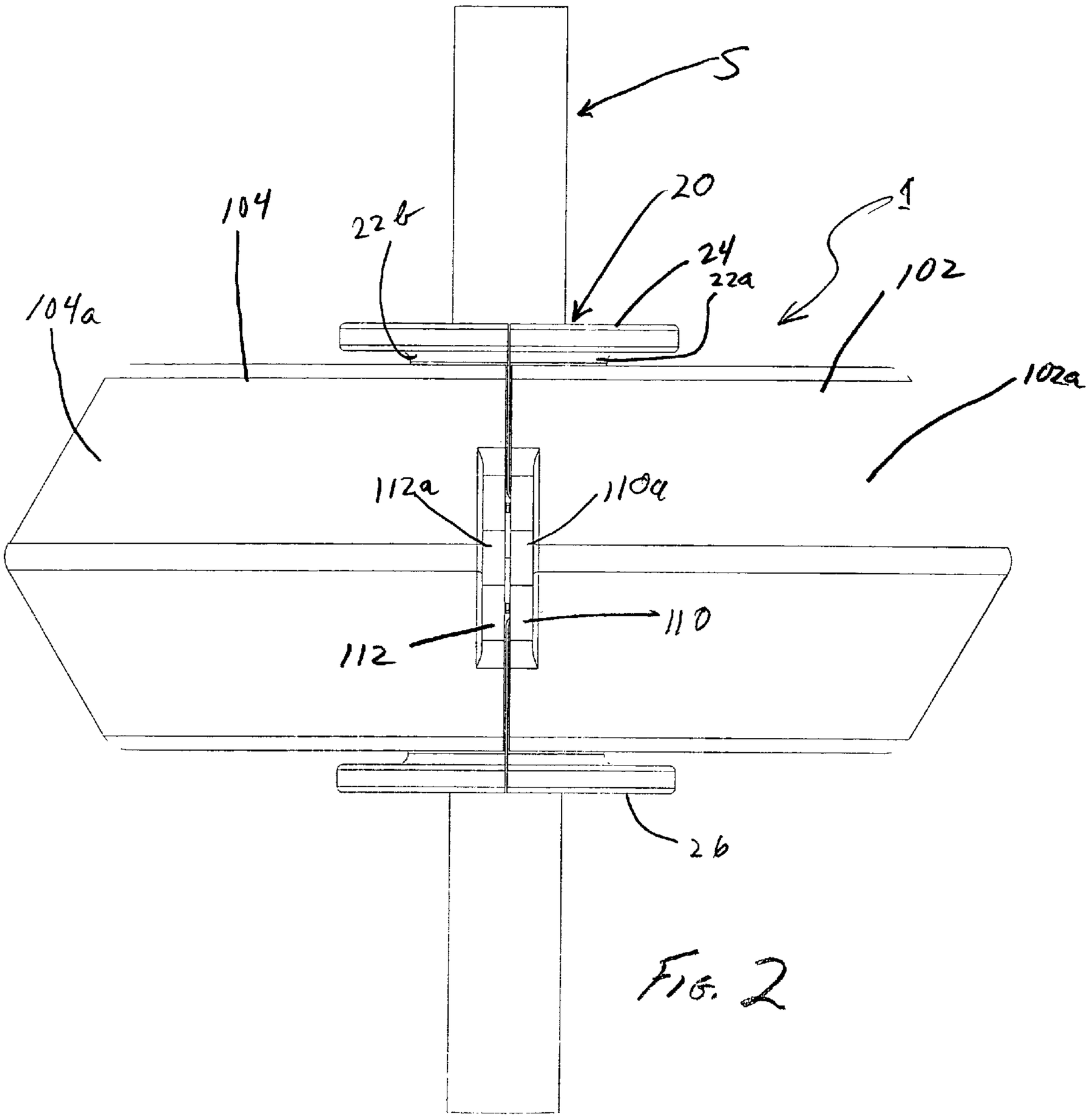


FIG. 2

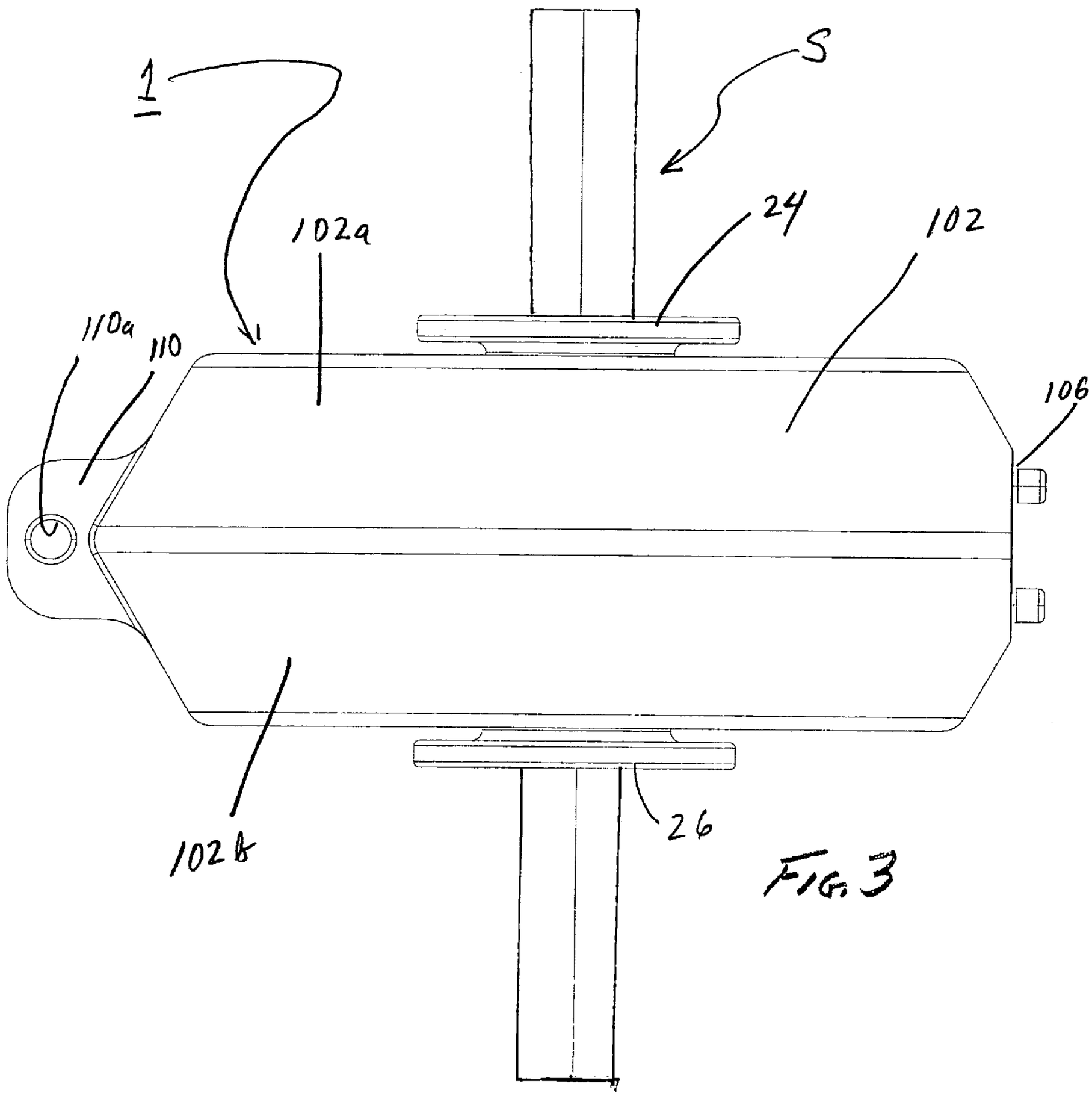


FIG. 3

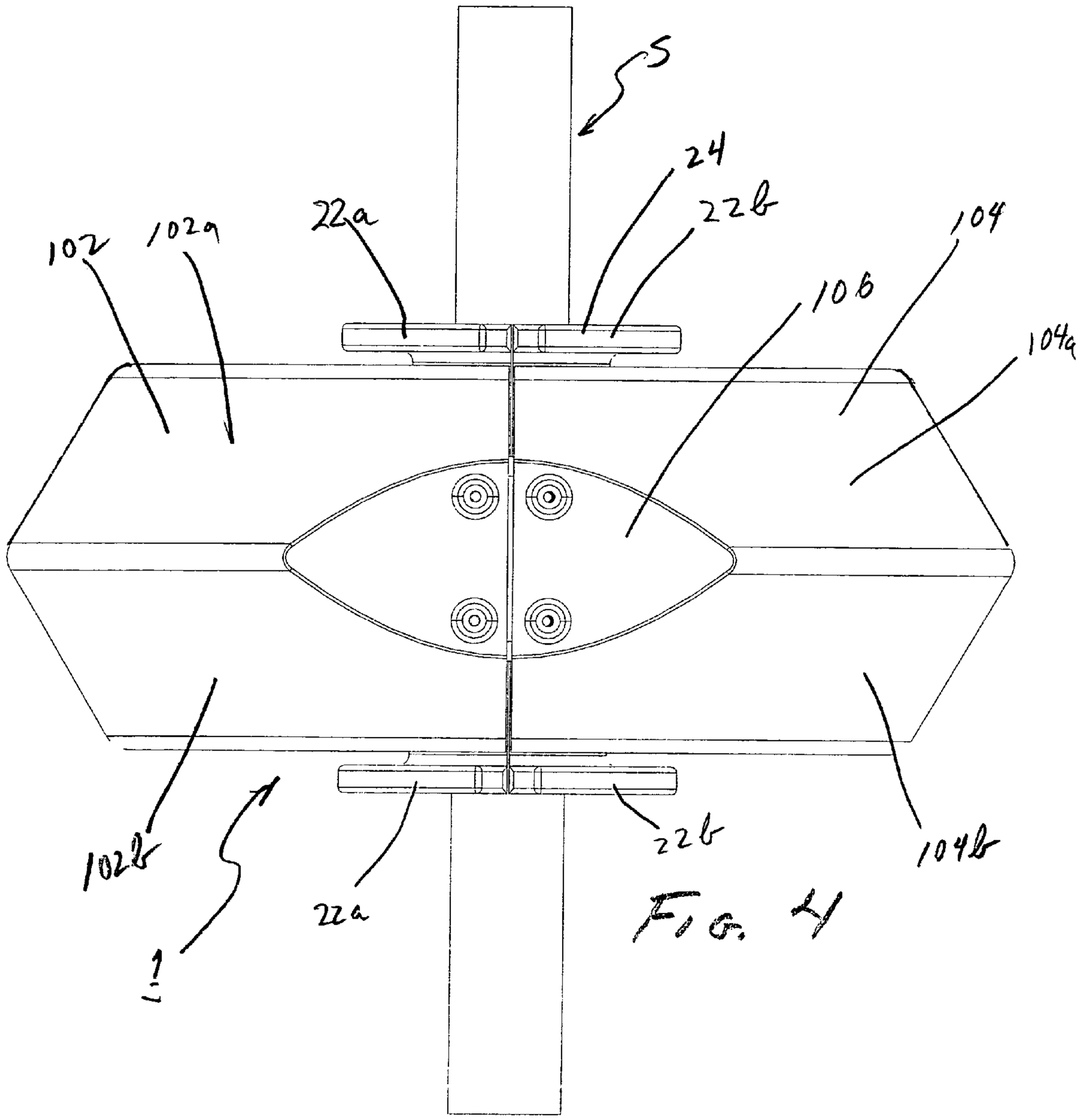


Fig. 4

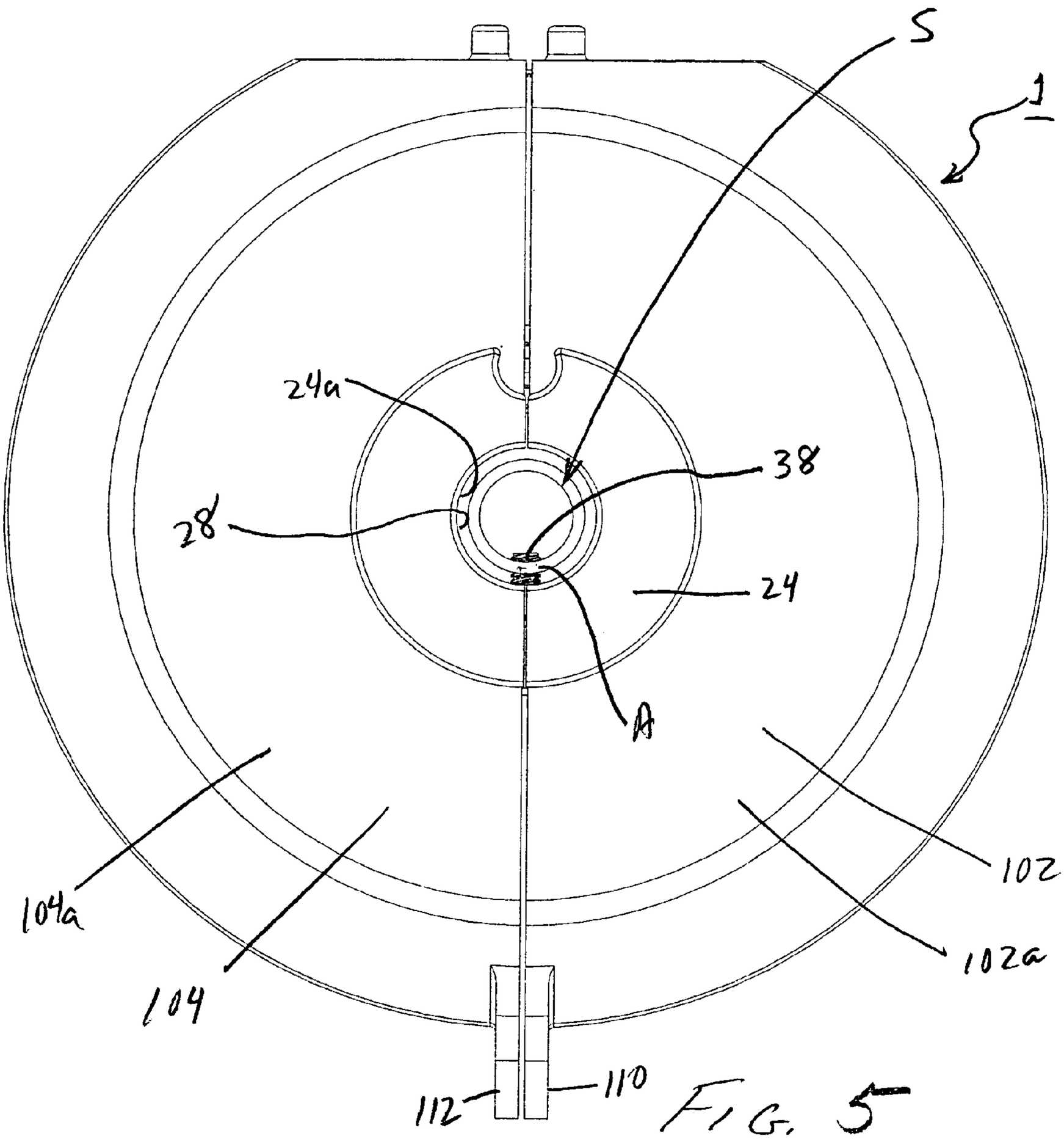


FIG. 5

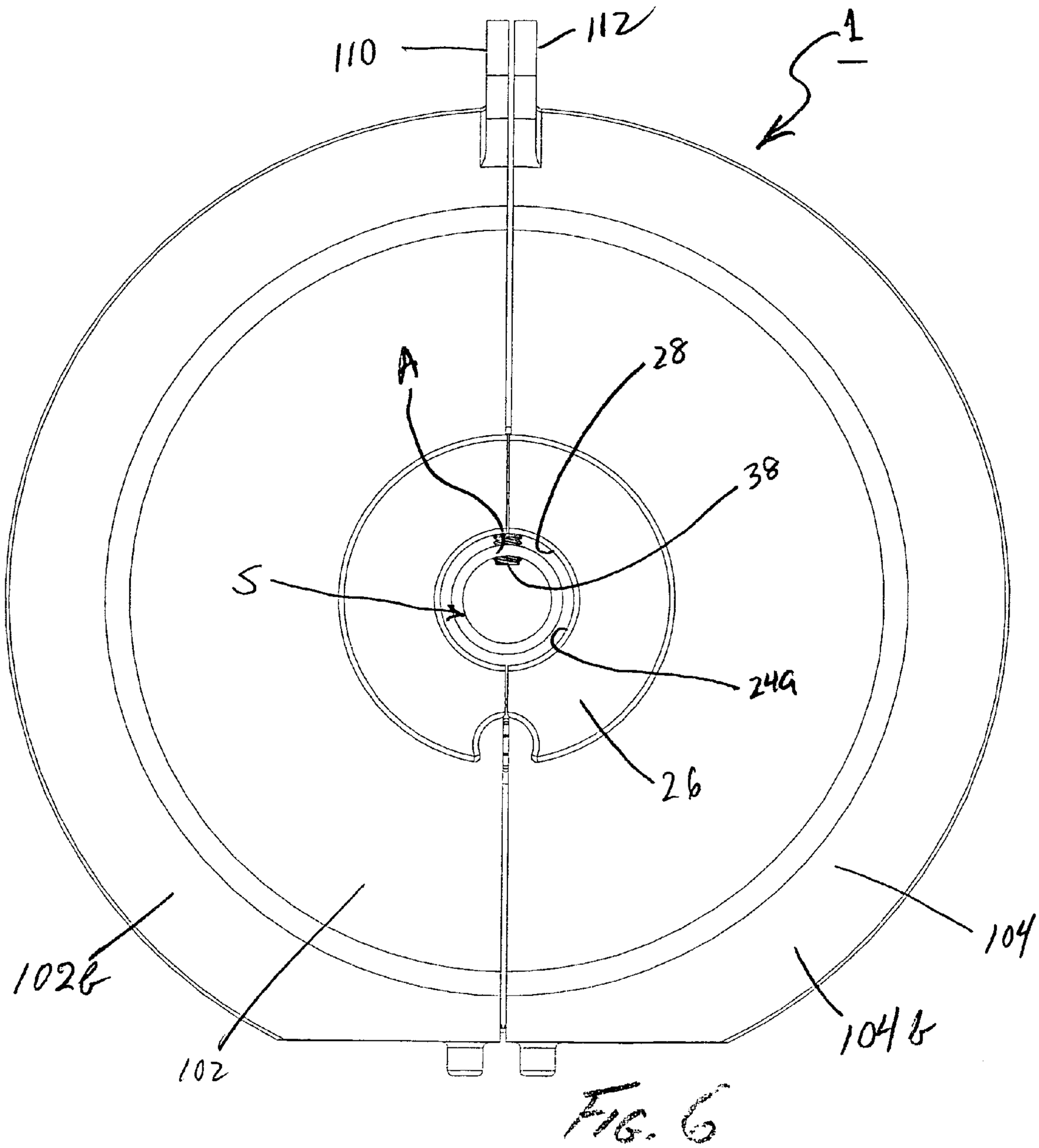


FIG. 6

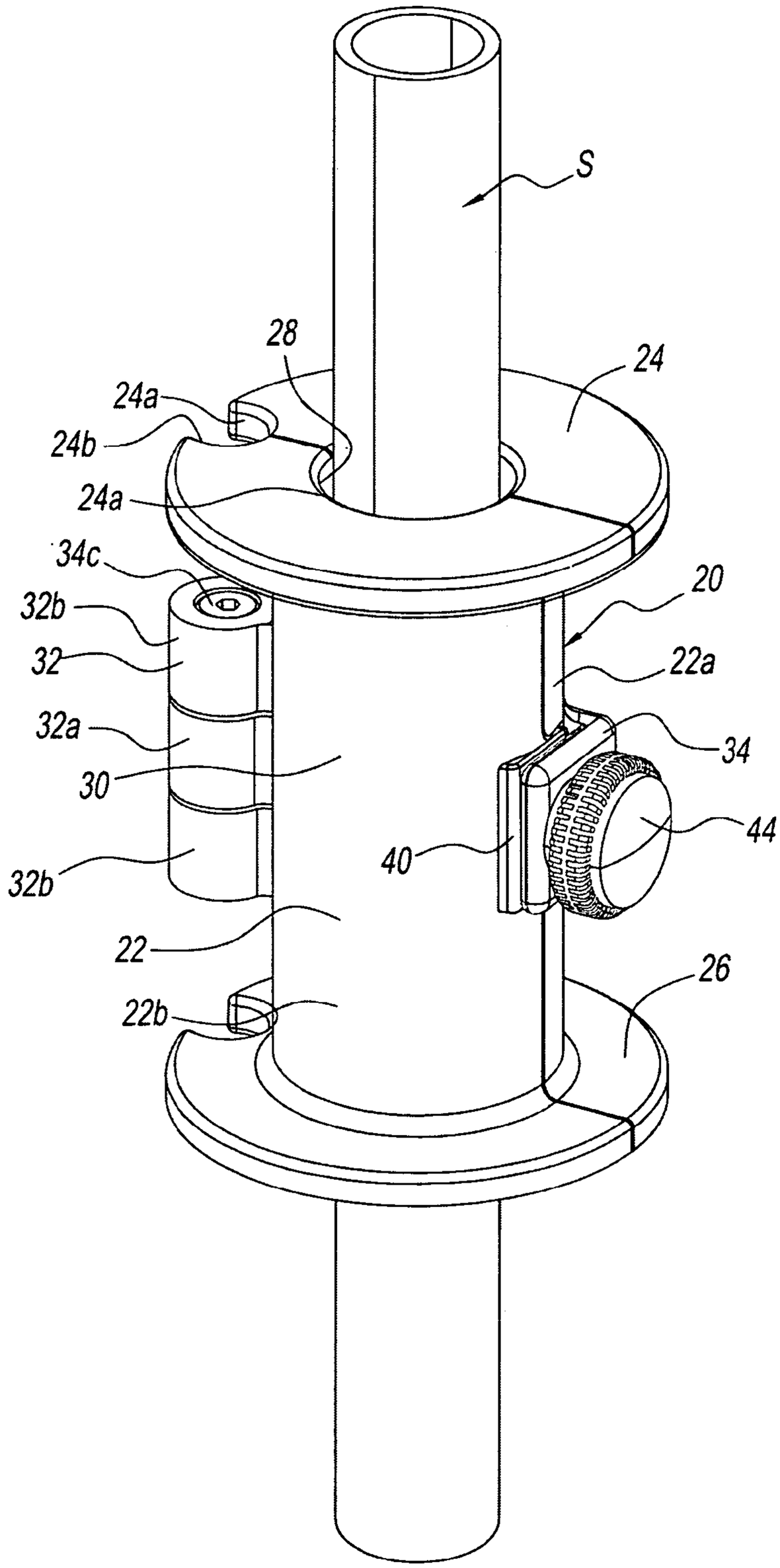


FIG. 7

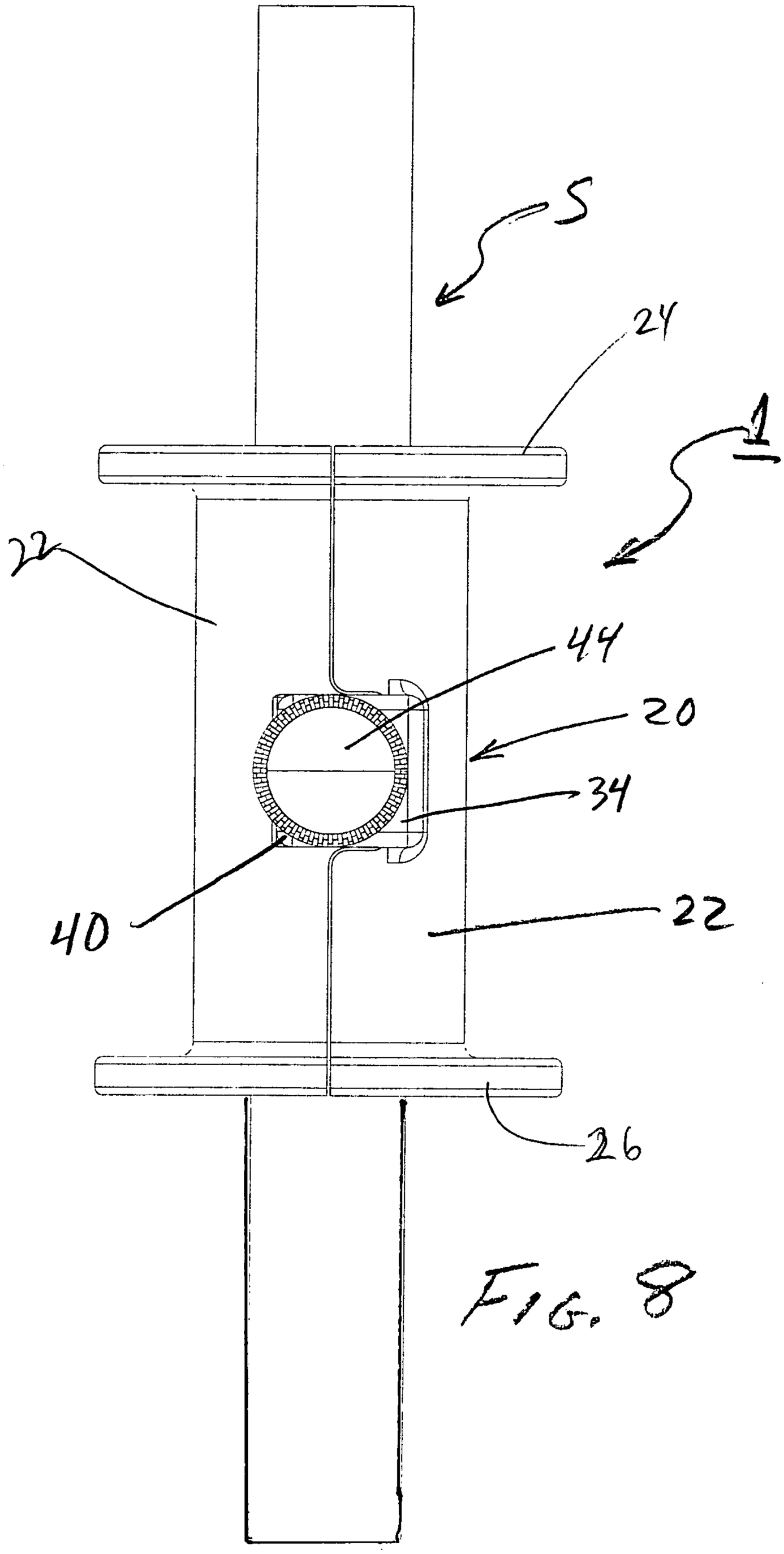


FIG. 8

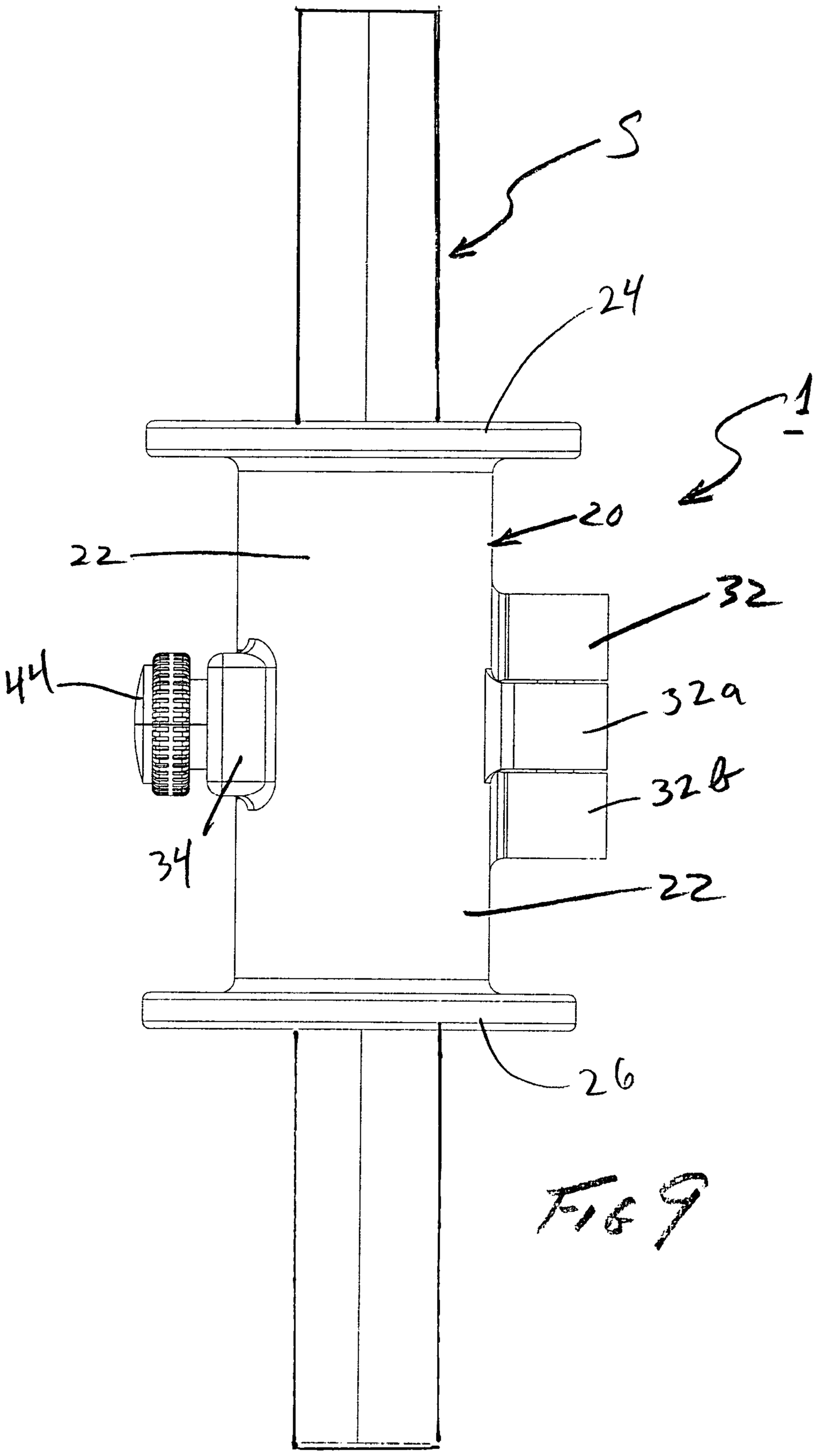


FIG 9

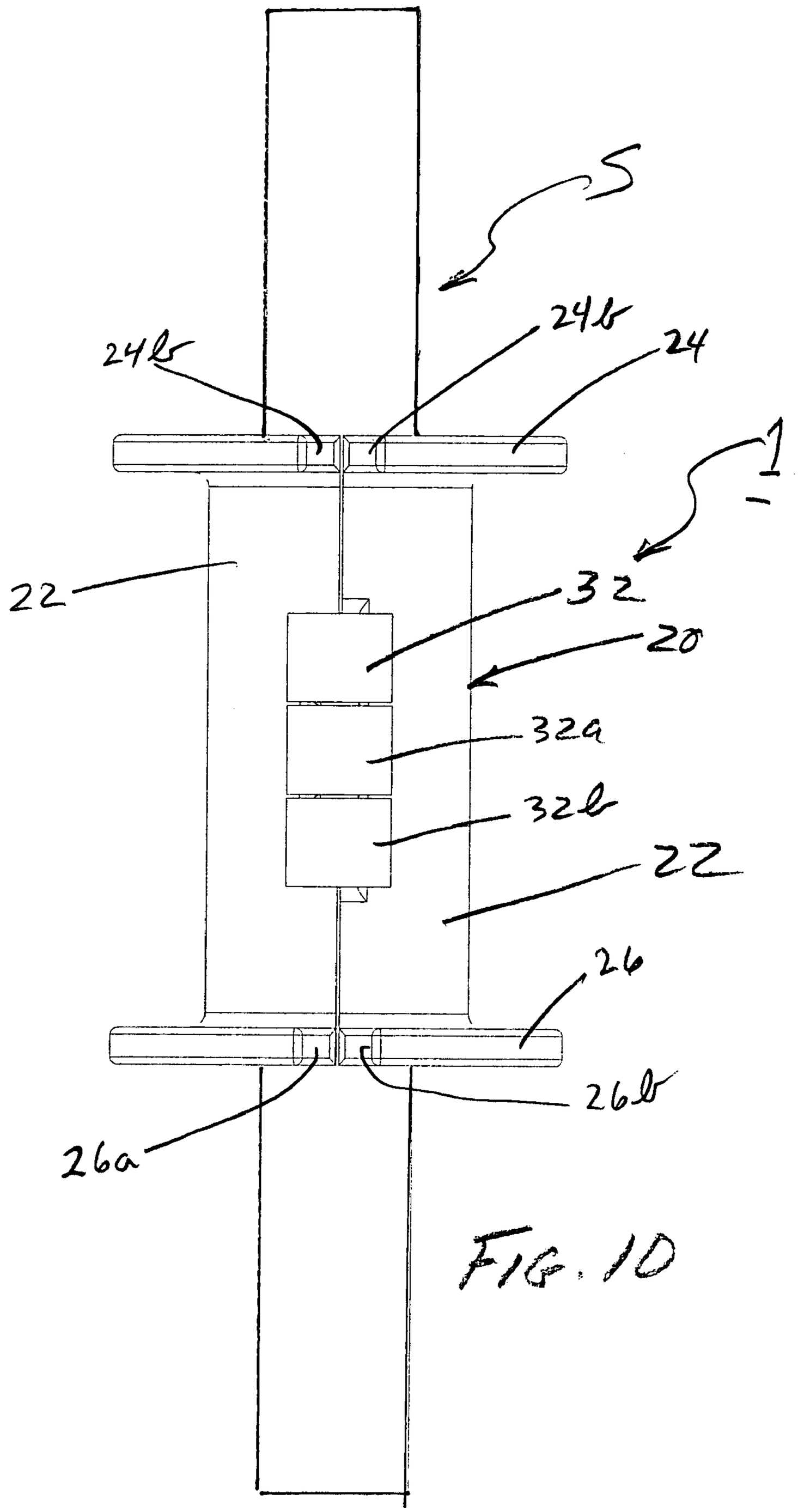


FIG. 10

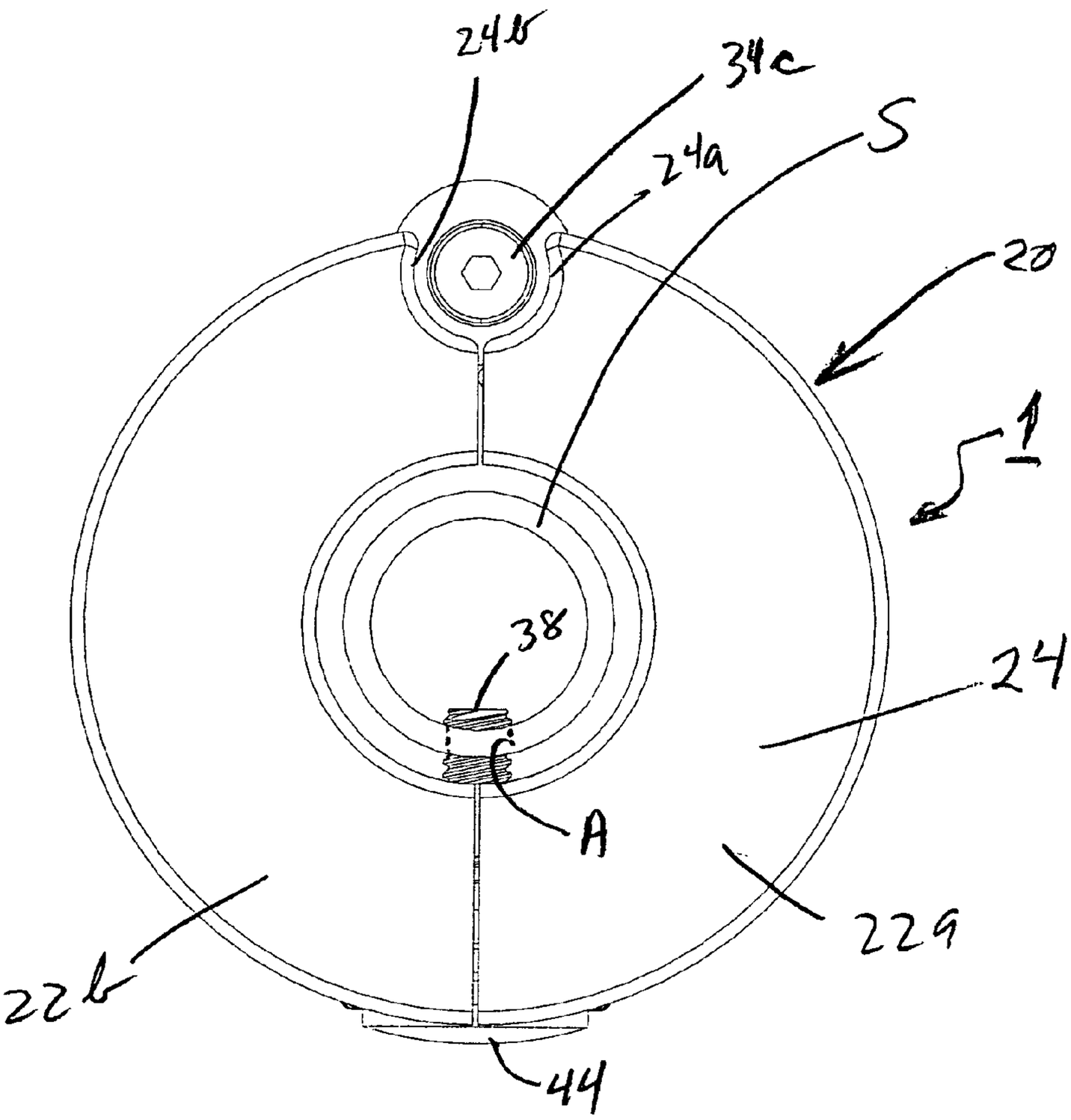


FIG. 11

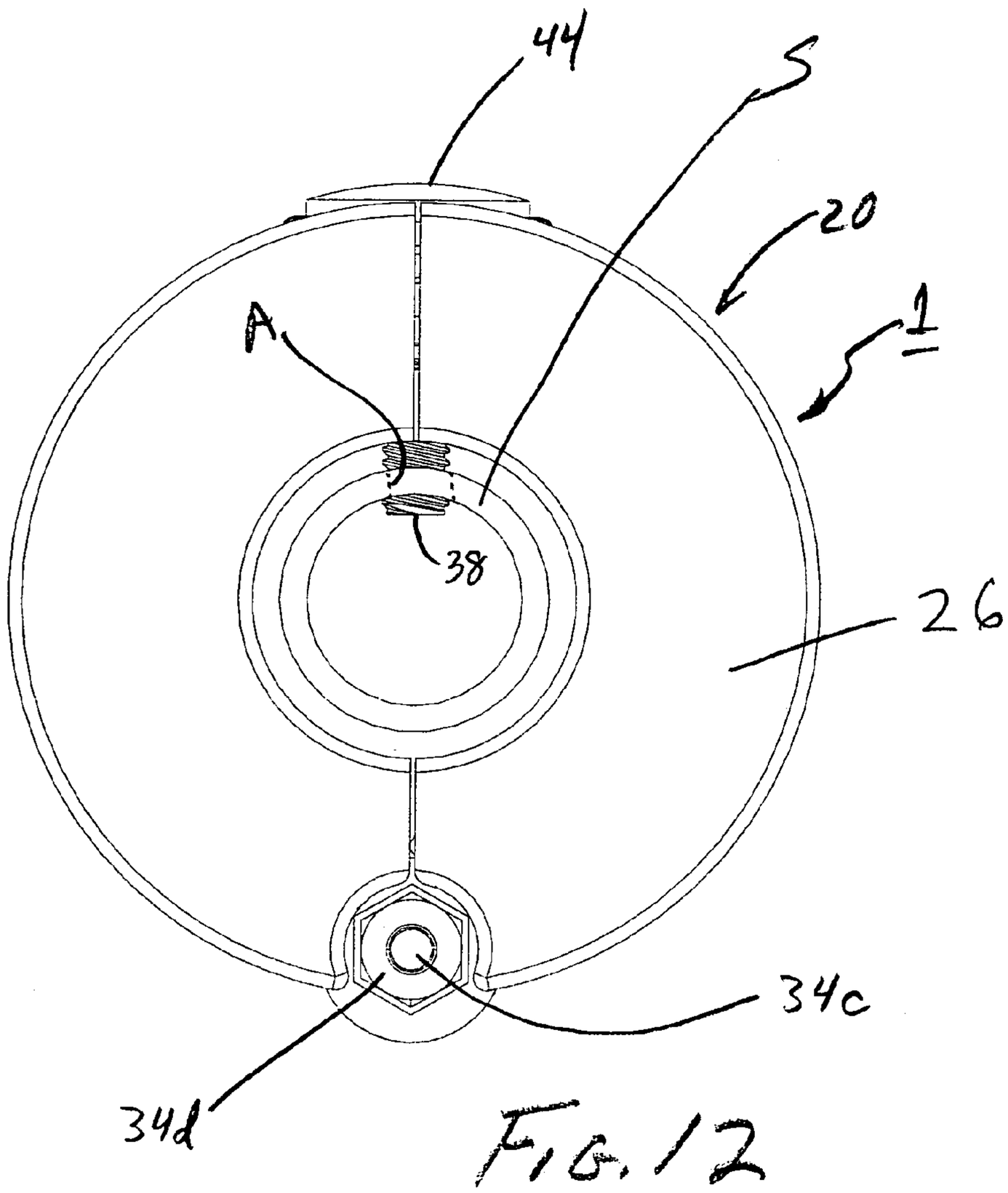


FIG. 12

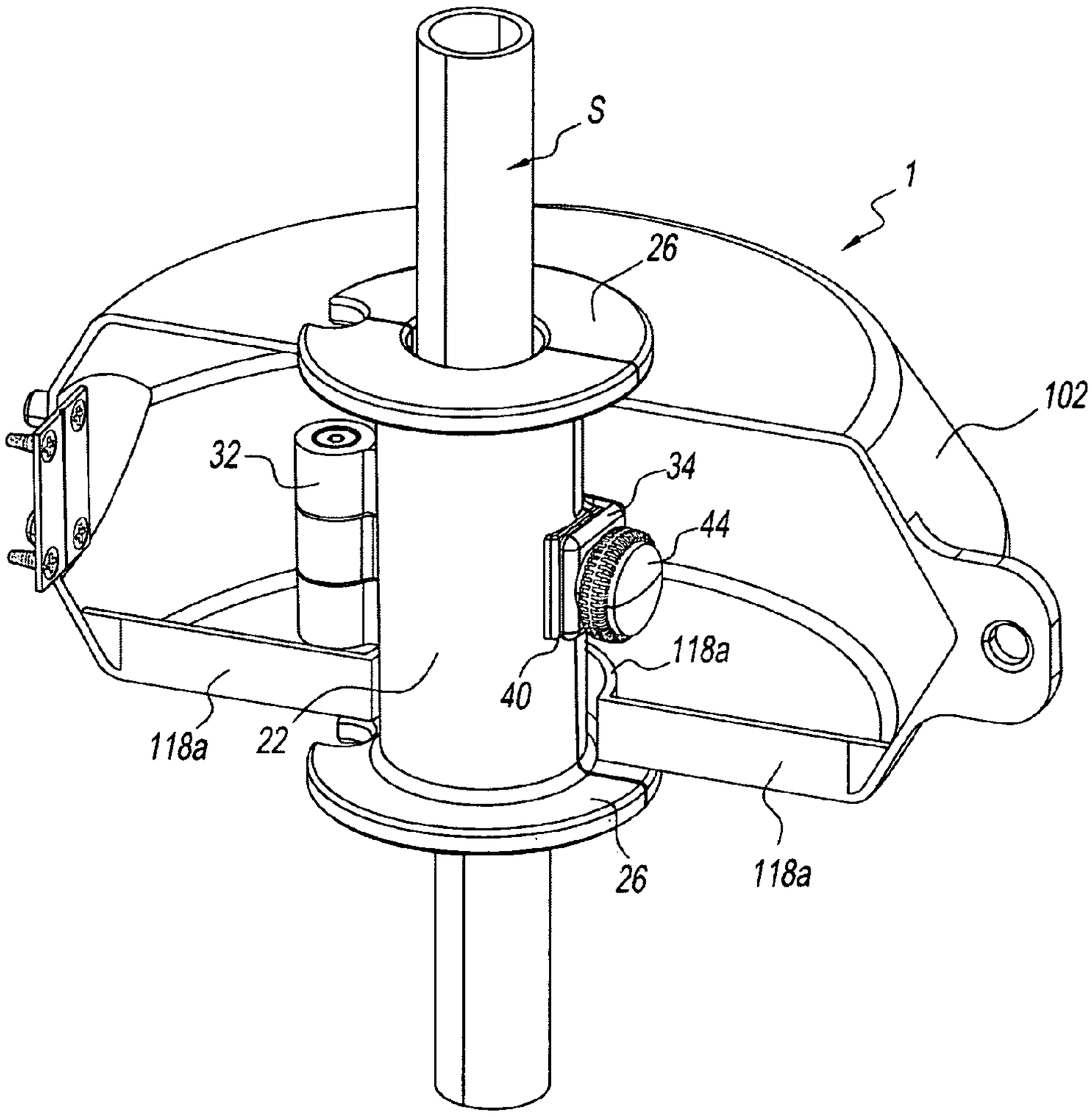


FIG. 13

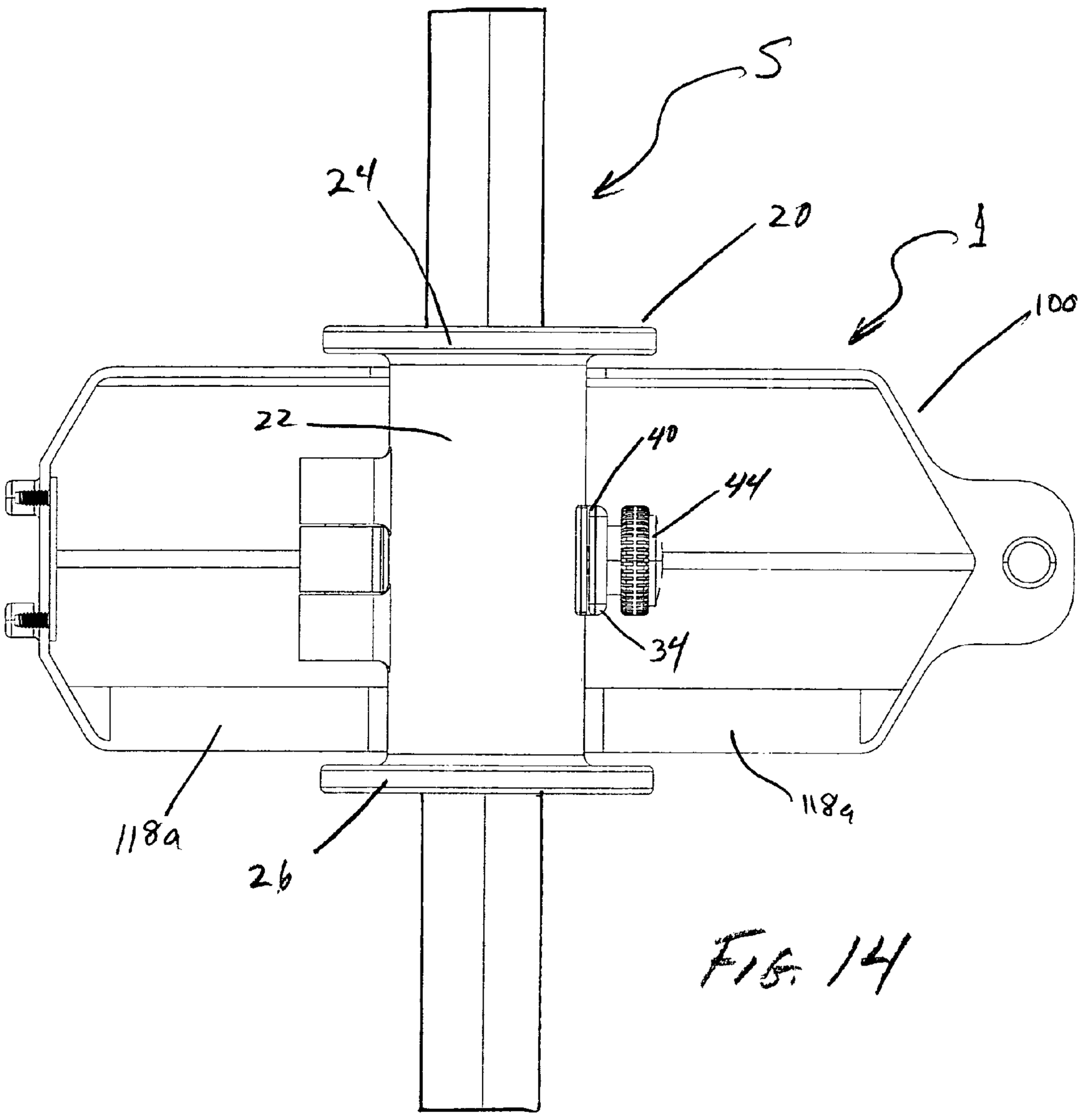


Fig. 14

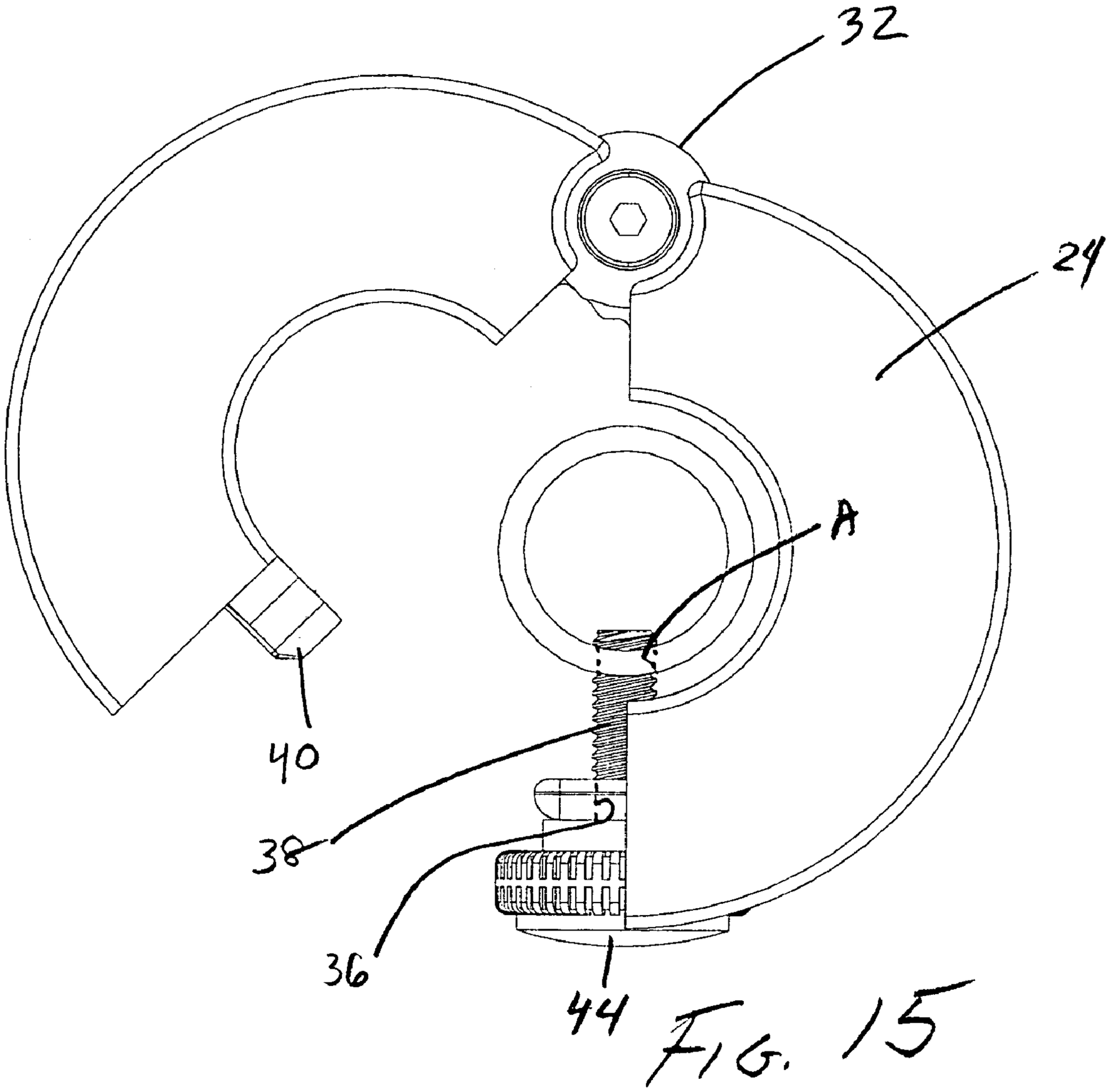


FIG. 15

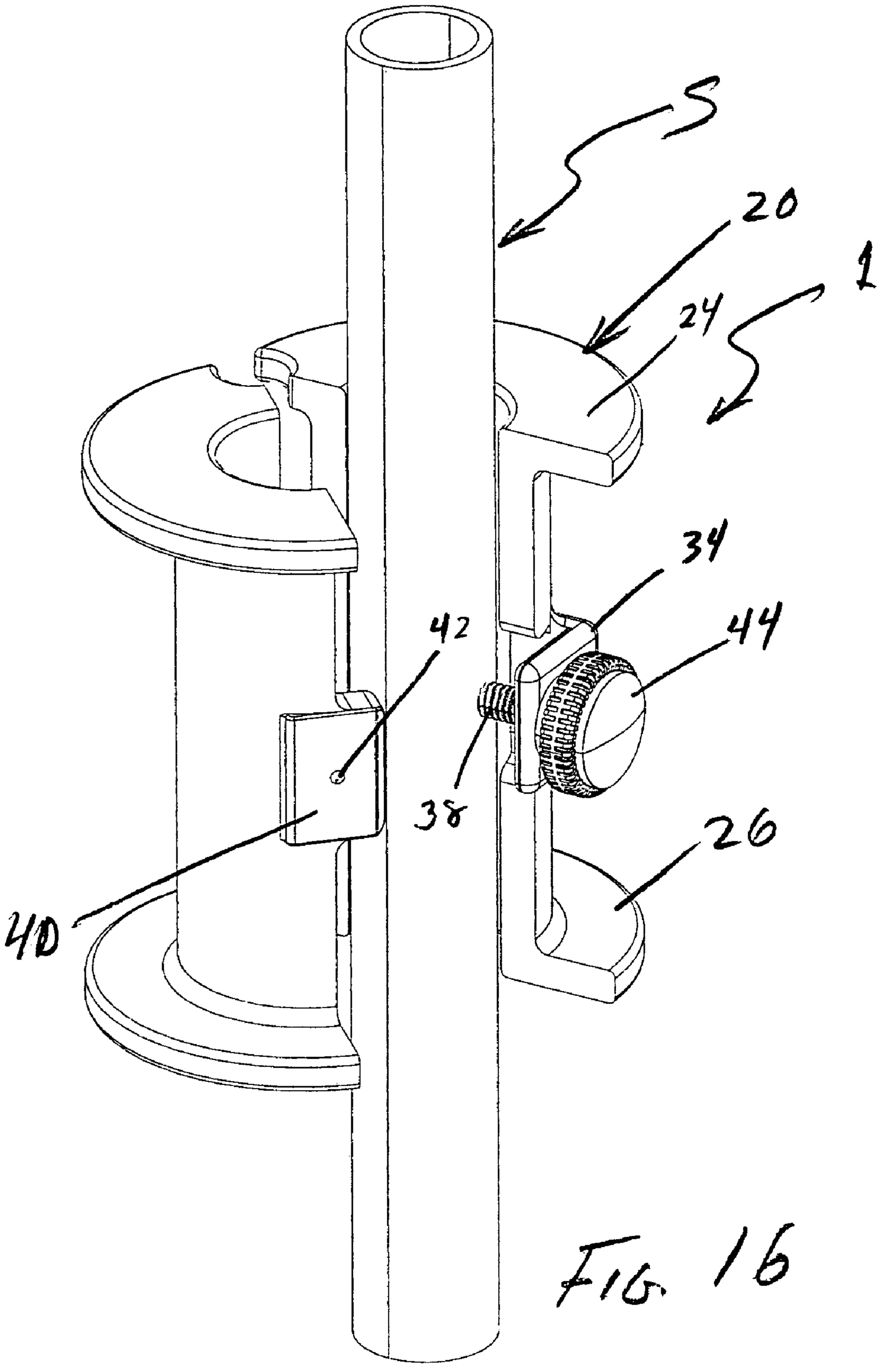


FIG. 16

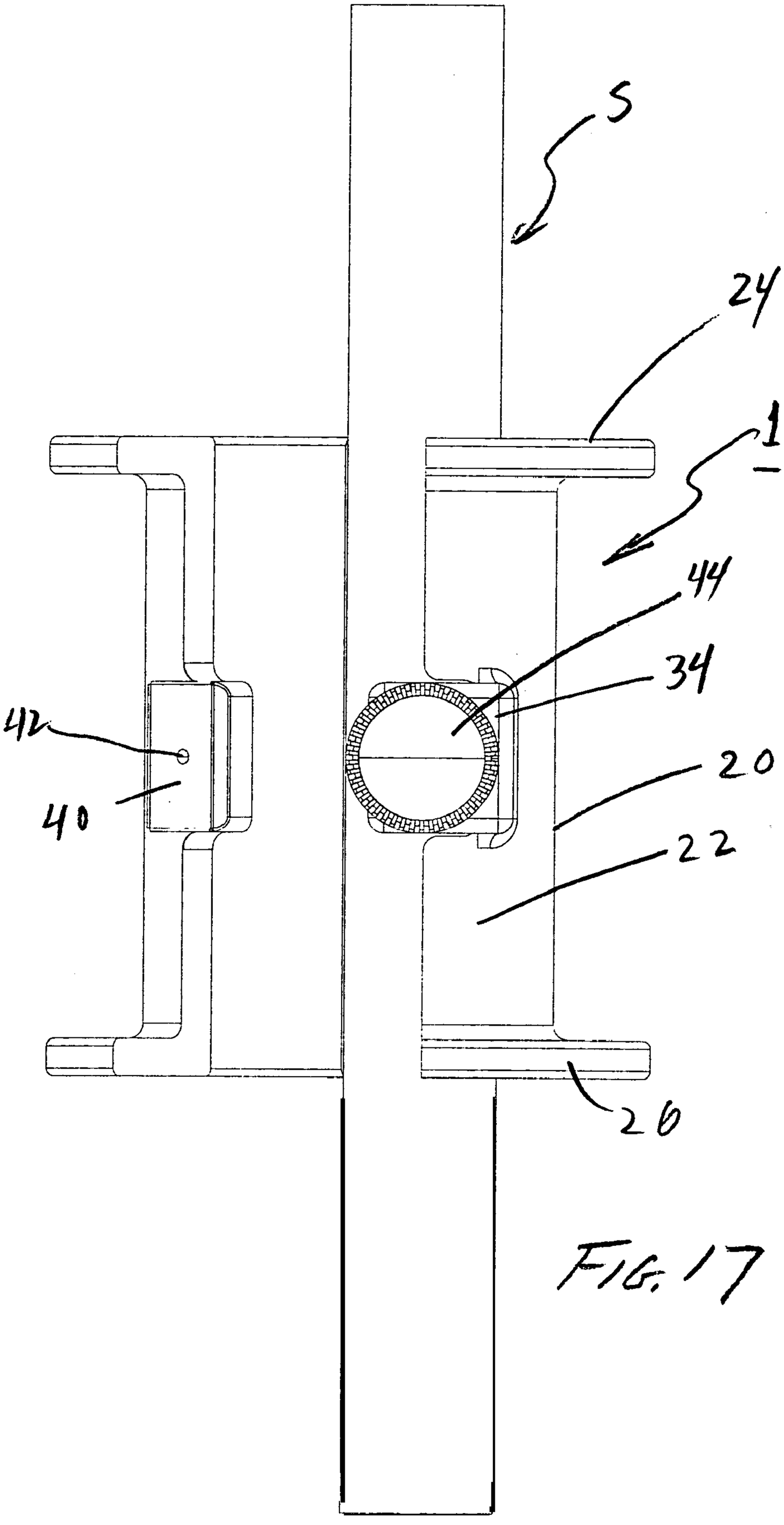


FIG. 17

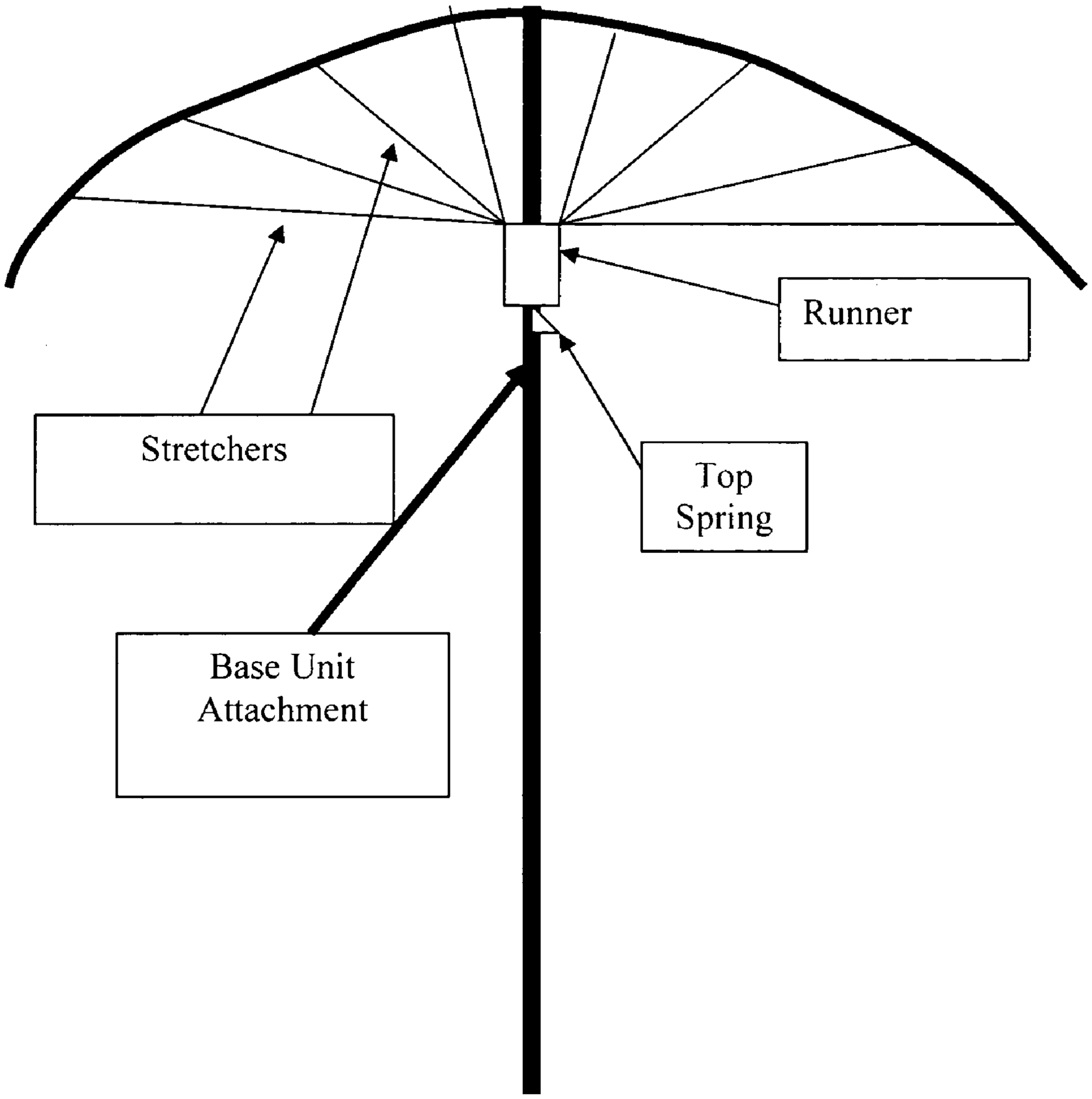


Fig. 18

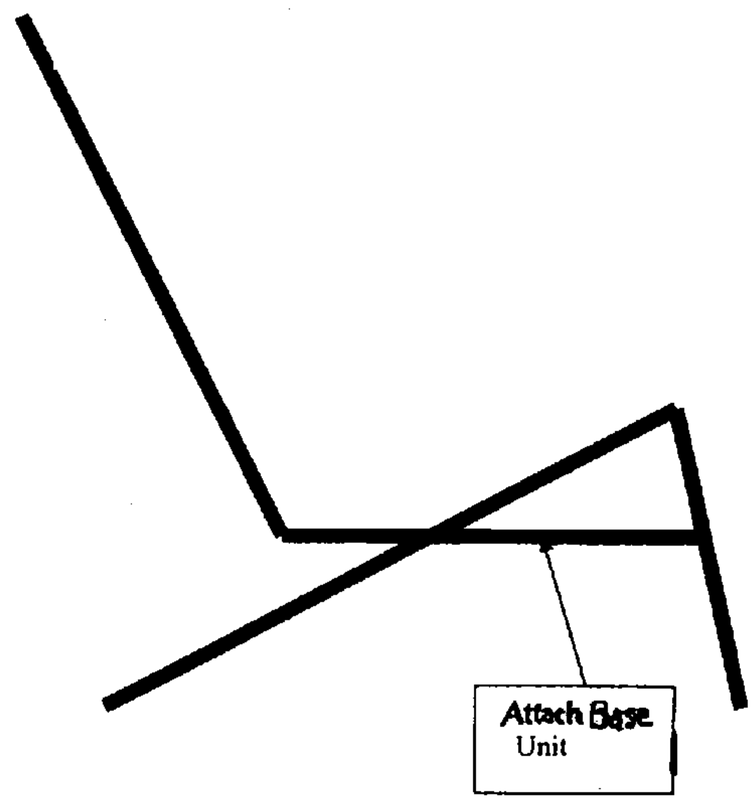


FIG. 19

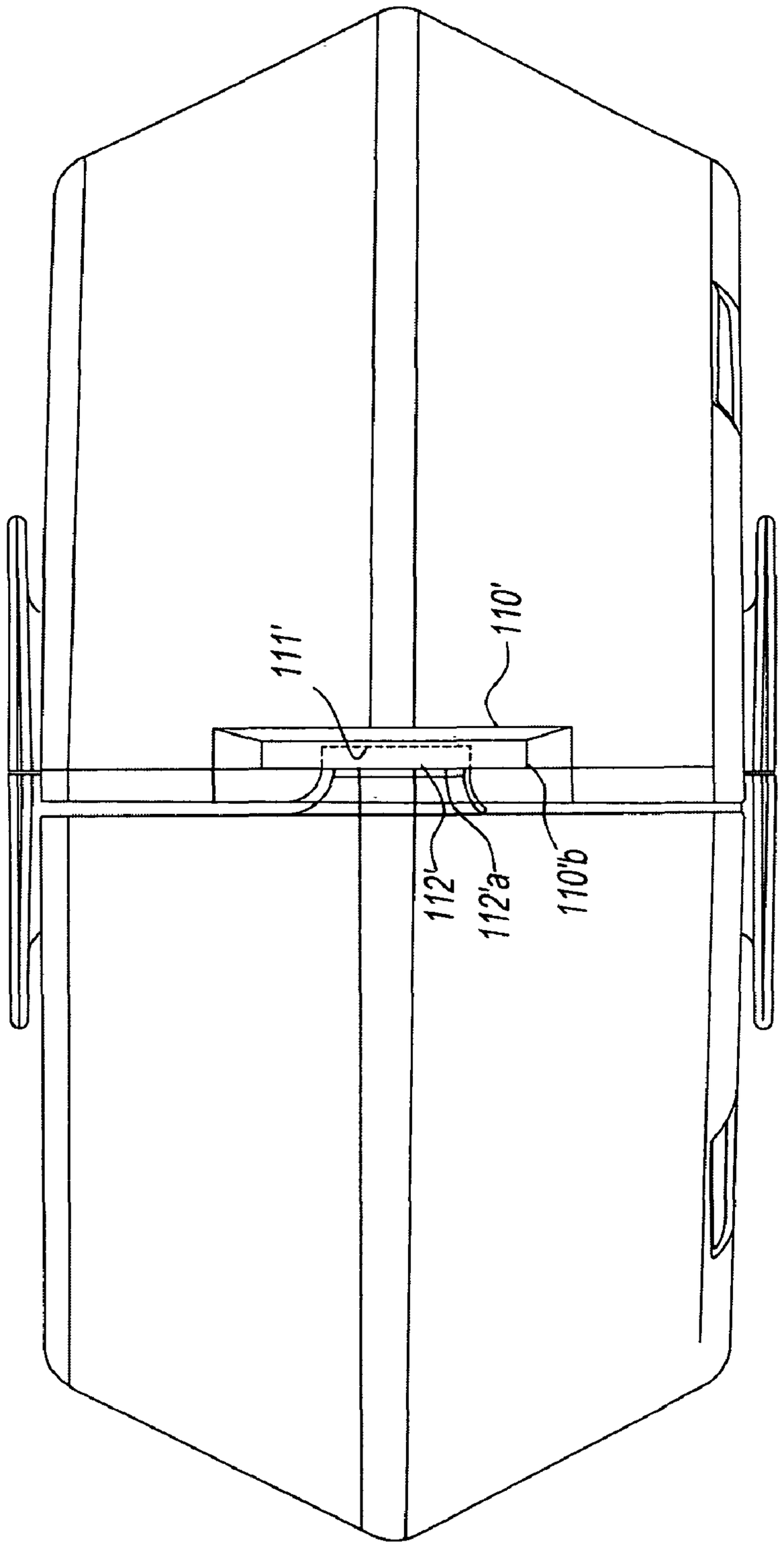


FIG. 20

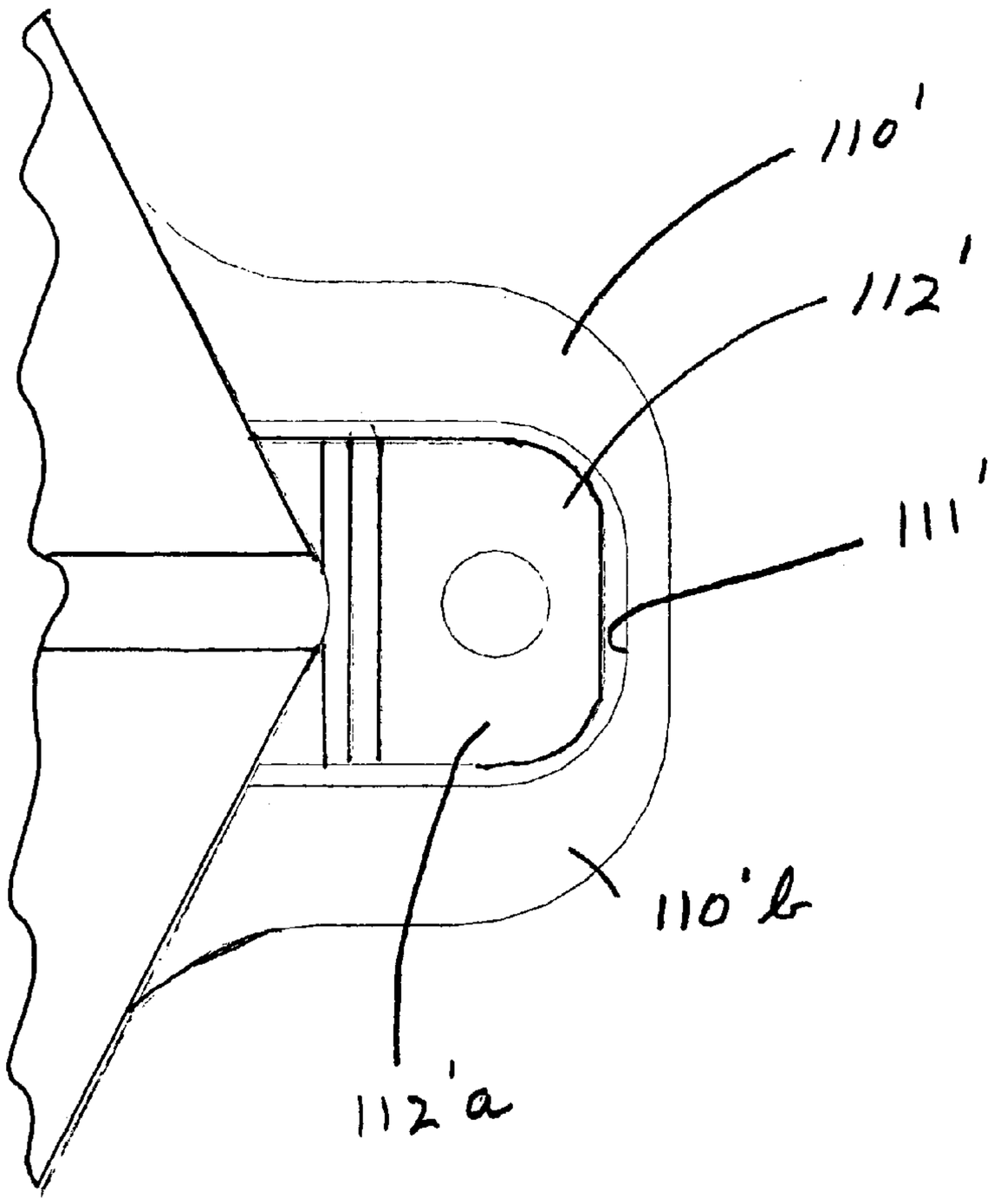


FIG. 21

PORTABLE ANTI-THEFT DEVICE

CROSS-REFERENCE TO RELATED APPLICATION

Applicant claims the benefit of the priority of U.S. Patent Application Ser. No. 61/123,486, filed Apr. 9, 2008.

BACKGROUND OF THE INVENTION

At the present time, if an individual or group goes on an outdoor recreational excursion (for example to a beach, such as for a day of swimming, sunbathing, and similar recreational activities), it is common for them to bring, or rent, a foldable beach umbrella or a folding beach chair. The folding umbrella is used to provide shade on exposed beaches. (The increasing focus on preventing skin cancer is likely to encourage more people to use umbrellas at the beach.) The folding beach chair is used to sit. Additionally, beachgoers frequently bring valuable possessions with them. These may include wallets, house or car keys, cell phones, digital cameras, MP3 players, etc. These possessions are generally small, valuable and easy targets for theft. Because of the nature of an outdoor recreational area, such as a beach, there are generally no facilities or other resources to secure these valuables. This presents beachgoers with a difficult choice: either one person must remain with the valuables at all times or the valuables must be hidden (in clothing or under other belongings.) This second choice results in many thefts of unattended property as beachgoers leave their valuables and casual thieves remove them.

Accordingly, there is a need to provide, in combination, a locking container suitable for storing valuables while at the outdoor recreational area, such as a beach or a similar location, and an anchoring device which will attach to a folding beach umbrella or folding chair and provide a base for the locking container.

BRIEF SUMMARY OF THE INVENTION

A portable anti-theft device for attachment to a piece of portable outdoor furniture comprises a base attachable to the outdoor furniture and a hollow security shell attachable to the base. The base comprises a segmented tubular body comprising at least two semitubular segments and having an inner peripheral surface; longitudinally opposed stops extending outwardly from the base, and a closure for attaching the base to the portable outdoor furniture. The hollow security shell comprises a first shell segment and a second shell segment (the first and second shell segments defining an enclosed internal space with a pair of vertically-opposed apertures), and a hinge joining said first and second half shells, the security shell being configured to enclose the closure.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWINGS

FIG. **1** is a perspective view of the portable anti-theft device of the present invention;

FIG. **2** is a front elevation view of the portable anti-theft device of the present invention;

FIG. **3** is a side elevation view of the portable anti-theft device of the present invention;

FIG. **4** is a rear elevation view of the portable anti-theft device of the present invention;

FIG. **5** is a top plan elevation view of the portable anti-theft device of the present invention;

FIG. **6** is a bottom plan view of the portable anti-theft device of the present invention;

FIG. **7**. is a perspective view of the base of the portable anti-theft device of the present invention;

FIG. **8**. is a front elevation view of the base of the portable anti-theft device of the present invention;

FIG. **9**. is a side elevation view of the base of the portable anti-theft device of the present invention;

FIG. **10**. is a rear elevation view of the base of the portable anti-theft device of the present invention;

FIG. **11**. is a top plan view of the base of the portable anti-theft device of the present invention;

FIG. **12**. is a bottom plan view of the base of the portable anti-theft device of the present invention;

FIG. **13**. is a perspective view of the portable anti-theft device of the present invention with one half of the security shell removed;

FIG. **14**. is a side elevation view of the portable anti-theft device of the present invention with one half of the security removed;

FIG. **15**. is a top plan view of the base of the portable anti-theft device of the present invention with the base partially open;

FIG. **16**. is a perspective view of the base of the portable anti-theft device of the present invention with the base partially open;

FIG. **17**. is a front elevation view of the base of the portable anti-theft device of the present invention with the base partially open;

FIG. **18**. is a diagrammatic illustration of a generic collapsible beach umbrella for use with the portable anti-theft device of the present invention;

FIG. **19**. is a diagrammatic illustration of a generic collapsible beach chair for use with the portable anti-theft device of the present invention;

FIG. **20** is a elevation view of an alternative embodiment of the portable anti-theft device of the present invention; and

FIG. **21** is a elevation view in enlarged scale of a portion of the alternative embodiment of FIG. **20** of the portable anti-theft device of the present invention;

DETAILED DESCRIPTION OF THE INVENTION

The portable anti-theft device **1** of the present invention is illustrated in FIGS. **1-17** and comprises a tubular base **20** and a security shell **100**. The tubular base **20** is configured to enclose a portion Sofa piece of foldable portable furniture and to be removably secured to that portion S against removal. In turn, the security shell **100** is configured to enclose the tubular base **20** and to be removably secured to it. The security shell **100**, as installed on the tubular base **20**, also defines a completely enclosed and lockable space for retaining articles in resistance against theft.

The portable anti-theft device **1** of the present invention is suitable, and is adapted for, attachment to portable, collapsible outdoor furniture, such as to the shaft of a collapsible beach umbrella (FIG. **18**) or to a leg, arm, or other suitable portion of a foldable beach chair (FIG. **19**), thereby rendering such furniture no longer fully collapsible rendering the furniture cumbersome and difficult to take and also acting as a visual signal that the furniture is being taken with the anti-theft device **1** still attached. It may even be suitable for attachment to a suitable outdoor feature, such as the trunk of a shrub or small tree or the like.

The portable antitheft device of the present invention is effective in preventing the casual theft of small, valuable belongings in two ways. First, valuables are secured in an

opaque, lockable container made of high-strength material. Potential thieves will not be able to discern what, if any, valuables are in the container and will be unable to open the container without drawing undue attention to themselves. Because of the unique design of the portable antitheft device of the present invention, the lockable container, or security shell, can be affixed to a beach umbrella in such a location on the umbrella, namely its shaft (FIG. **18**), as to make the umbrella unable to be closed. This would require a potential thief to carry the umbrella in a fully open position (with the lockable container attached) if a theft was attempted. This visibility would make this an undesirable target for casual theft. Rather than the audible deterrence of an alarm, the open umbrella would provide a visual deterrence.

The tubular base **20** comprises a cylindrical tube **22** terminating at least at one end, and preferably at each end, with a radially-extending stop **23** that prevents the security shell **100** from being pulled axially up or down the cylindrical tube **22** and off the base **20**. In an embodiment of the portable antitheft device of the present invention, the cylindrical tube **22** terminates at its top end with a top flange **24** and terminates at its bottom end with a bottom flange **26**. It has these flange extensions on the top and bottom ends of the tube so as to keep the lockable security shell container **100** from moving translationally beyond the top or bottom edges of the base unit **20**. The flanges **24** and **26** prevent removal of the security shell by sliding the security shell **100** off the tubular base **20**. The tube **22**, in top plan comprises a central interior cylindrical channel **28** and a generally cylindrical outer periphery **30**. Each of the top flange **24** and the bottom flange **26** are annular in top plan with each having a central circular aperture **24***a* and **26***a*, respectively, that coincides with the central cylindrical channel **28** and has the same inner diameter as that channel **28**. The outer periphery of each of the top flange and the bottom flange are circular in top plan and are greater in diameter than the outer diameter of channel **28**. The flanges **24** and **26** on the top and bottom of the base unit **20** perform two functions. First, they serve to keep any sand or other debris from entering the locking security shell container **100**. Secondly, they ensure that the base unit **20** and its associated security shell **100** is properly placed and kept immobile.

The tube **22** comprises a plurality of partially cylindrical tube segments, such as a pair **22***a* and **22***b* that are joined along one edge of each segment by a hinged connection **32**.

Hinged connection **32** comprises a first hinge segment **34***a* formed in the distal edge of tube segment **22***a* and a second hinge segment **34***b* formed in the confronting distal edge of tube segment **22***b*. First and second hinge segments **34***a* and **34***b* are operatively joined by a headed cylindrical hinge pin **34***c* with a threaded end passing through them and held in place by a threaded nut **34***d*. The head of the hinge pin **34***c* and the nut **34***d* are accessible by an arcuate cutout **24***a*, **24***b*, **26***a*, and **26***b* in each of the top and bottom flanges of each of tube segments **22***a* and **22***b* as may be seen in FIGS. **11** and **12**. Alternatively, the hinge pin **34***c* may be pushin fastener pin, thereby eliminating the need for a nut **34***b*. The axis of rotation of the hinge **32** (and hinge pin **34***c*) is parallel to the longitudinal central axis of the tube **22**. By opening the hinged segments **22***a* and **22***b*, such as two halves, of the base unit **20** by means of the hinge **32**, the base unit **20** can readily be placed on a portion S of a piece of foldable portable furniture (such as the shaft of a collapsible beach umbrella), encircling the portion S, and attached thereto.

As may be seen in FIGS. **7**, **8**, **9**, and **13-18** on the front of the tubular component **22** opposite the hinge **32** is a closure mechanism that closes the base **20** on the portion S. It comprises two parts. On one tube segment **22***a* is a first tab-shaped extension **34** that projects from the left side of tube segment **22***a*. It has a threaded aperture **36** through it large enough to accommodate a threaded shaft **38**. On the other side of the tube is a second tab-shaped extension **40** that projects from the right side tube segment **22***b*. It has a threaded aperture **42** through which the threaded shaft **38** is passed. When the two halves **22***a* and **22***b* of the tube **22** are closed, the second tab **40** is located behind first tab **34** and the aperture **42** in tab **40** aligns with the threaded aperture **36** in tab **34**. The threaded shaft **38** may be provided with an enlarged diameter circular gripping wheel **44** to facilitate rotation of the shaft **28** to tighten or loosen it. As illustrated in FIGS. **5**, **6**, **11**, **12**, and **15**, the portion S may be provided with a threaded aperture A so that, with threaded aperture **36** aligned with aperture A, threading the shaft **38** through aperture **36** and aperture **42** and continuing to rotate it will thread the shaft into and through aperture A, thereby positively affixing device **1** to the portion S and doing so in a removable manner. Alternatively, the portion S may lack an aperture and the base **20** may be secured to the portion S by tightening the shaft **28** against the surface of the shaft S so that the distal end of the shaft **28** clamps the base **20** and the portion S and frictionally prevents movement of base **20** with respect to portion S.

To install the base **20** on a beach umbrella (or any similar item) the tube **22** is opened via the hinge **32**. The base **20** is placed around the portion S to which it is to be attached. The two halves **22***a* and **22***b* of the tube **22** are closed together—thereby moving the tab **40** on the right side of segment **22***b* (and its associated aperture **42**) behind the threaded aperture **36** on tab **34** on segment **22***a* and into alignment with aperture **36**. Shaft **38** is placed in the threaded aperture **36** and tightened until the base **20** is securely fastened to the portion. This action both locks the two halves **22***a* and **22***b* of the base unit **20** together and locks the entire base unit **20** in place on the portable furniture.

The security shell **100** comprises a pair of clamshell-shaped half shells **102** and **104** joined by a hinge **106**. Each half-shell comprises an upper frustro-conical portion **102***a* and **104***a* and a lower frustro-conical portion **102***b* and **1041**), the lower portion **102***b* and **104***b* being an inverted frustro-conical section. The top and bottom of each of these half shells **102** and **104** have semicircular holes which, when the security shell **100** is closed, create a circular aperture **108** identical in size to the outer diameter of the outer periphery **30** of tube **22** of the base **20**. In an alternative embodiment, the aperture **108** has a greater diameter than the outside diameter of the outer periphery **30** of the tube **22** so that the shell **100** can rotate on the base **20** thereby not allowing a thief to get purchase or leverage on the shell **100** with respect to the base **20** and to torque the device **1** off its anchoring furniture. Both sides **102** and **104** of the security shell **100** have outwardly extending tabs **110** and **112** with holes **110***a* and **112***a* in them to accommodate a locking device (not shown) located on the side of the security shell opposite of the hinge **106**.

In the embodiment shown in FIGS. **1-17**, the tabs **110** and **112** abut each other when the half shells **102** and **104** are closed. In an alternative embodiment (FIGS. **20** & **21**), one tab **110'** is provided with a recess **111'** and the other tab **112'** is reduced in dimension (length and width, for example) so that the tab **112'** fits into the recess **111'** of tab **110'** and the outer surface **112'***a* of tab **112'** lies flush with the corresponding surface **110'***b* of tab **110'**. This hampers access to the space between the confronting abutting surfaces of tabs **110'** and **112'**, such as by a tool, for prying the half shells **102** and **104** apart.

When the hinge **106** connecting the two half shell **102** and **104** is closed, these tabs **110** and **112**, and their associated

apertures **110***a* and **112***a*, are aligned. The axis of rotation of the hinge **106** is parallel to the longitudinal central axis of the base **20** and the longitudinal central axis of the security shell **100**. The height of the security shell **100** from its bottom surface **114** to its top surface **116** is at least substantially equal to the distance from the top surface of the bottom flange **26** to the bottom surface of the top flange **24** so that, upon closing the security shell **100**, the security shell **100** cannot shift axially on the portion S but may optionally rotate around the outer cylindrical surface of the tube **22** of the base **20**. Optionally, the aperture **108** is dimensioned to permit rotation so that a thief would have difficulty getting sufficient grip and purchase on the outer surface of the shell to twist it off the base **20** or the portion S, or both. As may be seen in FIGS. **14** and **15**, each half shell **102** and **104** is provided with an upstanding bottom lip **118***a* and **118***b* that extends across the diameter of the half shell **102** and **104**. The lip **118***a* and **118***b*, along with the lower portion of each half shell, provides a recess or walled tray to retain small items in the half shell **102** and **104**. The confronting edges of half shell **102** and half shell **104** may be provided with overlapping peripheral lips around their confronting periphery so as to close the space between the confronting edges of half shell **102** and half shell **104**. The bottom surface of each lower portion of each half shell **102** and **104** may be provided with reinforcing ribs to strengthen the shell **100**.

When placed between the flanges of the base unit **24** and **26** and closed (as described above), the security shell **100** is prevented from being readily removed from the portable furniture. In addition, by this design, access to the threaded shaft **38** securing the base unit **20** to the portable furniture is prevented by the security shell **100** that covers the closure mechanism.

The shape of the security shell **100** may vary based on the type of anchoring device that is used. The security shell **100** is hollow, which provides significant storage space for belongings to be stored.

To secure valuables, the user places them in the storage spaces of either one or both halves **102** and **104** of the security shell **100**. The security shell **100** is then placed between the two flanges **24** and **26** on the base unit **20** with the tube **22** of the base unit **20** in the circular cutouts forming the circular aperture **108** of the security shell **100**. The two halves **102** and **104**

In use, the portable anti-theft device **1** of the present invention is placed on, and fixedly secured with respect to, a piece of collapsible or foldable outdoor furniture in such a way as to prevent the collapse or folding of that piece of furniture into a transportable or storable condition. As installed, it prevents anyone from moving the piece of furniture easily and without drawing attention. In the case of a collapsible beach umbrella (see FIG. **18**), the device **1** is attached to the shaft of the umbrella in sufficient proximity to the runner of the umbrella (in the runner's position when the umbrella is open) that the runner cannot fully move down the shaft. That is, the attachment of the device **1** to the umbrella shaft stops axial translation of the runner on the shaft of the umbrella. In the case of a collapsible or folding outdoor chair (FIG. **19**), the device **1** is attached to the leg, arm, back, or other relevant part in sufficient proximity to a pivot that, upon folding or collapse, prevents the chair from being collapsed or folded to a storage or transport configuration. That is, the attachment of the device **1** to the chair stops rotational pivoting of one or more structural elements of the chair. Hence, the purpose of the device **1** is to stop axial translation or pivotal rotation of one structural element of a piece of collapsible or foldable outdoor furniture with respect to another structural element of that piece of furniture, thereby impairing transportation or storage of that piece of furniture.

I claim:

1. A portable anti-theft device for attachment to a piece of portable outdoor furniture comprising

a. a base attachable to said outdoor furniture comprising

i. a segmented tubular body comprising at least two semitubular segments and having an inner peripheral surface;

ii. longitudinally opposed stops extending outwardly from said base; and

iii. a closure for attaching said base to said outdoor furniture;

b. a hollow security shell attachable to the base comprising

i. a first shell segment,

ii. a second shell segment,

iii. said first and second shell segments defining an enclosed internal space with a pair of vertically-opposed apertures,

iv. a hinge joining said first and second shell segments,

v. said security shell being configured to enclose said closure.

2. A portable anti-theft device as recited in claim **1**, wherein said closure comprises

a. a first extension of a first of said segments;

b. a second extension of a second of said segments;

c. a member secured to at least one of said extensions and extending radially inwardly of said base a distance greater than said inner peripheral surface and at least into contact with the piece of outdoor furniture, said member locking said extensions in fixed, closed position with respect to each other.

3. A portable anti-theft device as recited in claim **1**, wherein

a. said first shell segment comprises a first half shell of a pair of clamshell-shaped, vertically opposed half shells and

b. said second shell segment comprises a second half shell of a pair of clamshell-shaped, vertically opposed half shells.

4. A portable anti-theft device as recited in claim **3**, wherein said security shell, when said half shells are closed, comprises

a. an upper frustro-conical portion and

b. a lower frustro-conical portion, said lower portion being an inverted frustro-conical configuration.

5. A portable anti-theft device as recited in claim **3**, wherein each of said half shells

a. has a lower edge, said edges confronting each other when said shell is closed and

b. is provided with transverse upstanding rib on the lower edge of said half shell.

6. A portable anti-theft device as recited in claim **1**, wherein said stops comprise

a. an upper annular flange, and

b. a lower annular flange.

7. A portable anti-theft device as recited in claim **1**, wherein said at least two semitubular segments comprise a pair of semi-cylindrical tube segments.

8. A portable anti-theft device as recited in claim **7**, wherein said semi-cylindrical tube segments are joined together by a hinge.

9. A portable anti-theft device as recited in claim **1**, wherein said device is removably affixed to a collapsible umbrella, said umbrella having a shaft and a rider axially translatable on said shaft.

10. A portable anti-theft device as recited in claim 9, wherein said device is so affixed in adjacent proximity to said rider when said umbrella is open.

11. A portable anti-theft device as recited in claim 1, wherein said device is removably affixed to a folding piece of outdoor furniture, said piece of furniture having at least one structural element in rotational pivoting relationship to another structural element of said piece of furniture for folding said piece of furniture by pivotally rotating said one structural element with respect to said other structural element.

12. A portable anti-theft device as recited in claim 11, wherein said device is so affixed to said first structural element to stop said pivotal rotational movement.

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